

In the Claims:

Please cancel claims 1-21, and 23-29.

1. (Canceled).
2. (Canceled).
3. (Canceled).
4. (Canceled).
5. (Canceled).
6. (Canceled).
7. (Canceled).
8. (Canceled).
9. (Canceled).
10. (Canceled).
11. (Canceled).
12. (Canceled).
13. (Canceled).
14. (Canceled).
15. (Canceled).
16. (Canceled).
17. (Canceled).
18. (Canceled).
19. (Canceled).

20. (Canceled).

21. (Canceled).

22. (Original) In the manufacture of a MODU jacking system capable of withstanding at least a maximum leg load of W, the improvement comprising:

manufacturing a plurality of MODU supporting legs capable of carrying a plurality of toothed racks;

selecting a number of toothed racks R and fastening the toothed racks on the plurality of MODU supporting legs;

selecting a number of hydraulic piston/cylinders N, having a commercially available diameter d;

manufacturing a plurality of rack engagement member capable of engagement with one of the toothed racks and attaching a rack engagement member to each piston of each hydraulic piston/cylinder;

providing a source of hydraulic pressure P on the MODU to provide relative motion between the MODU platform and the MODU supporting legs by application of hydraulic pressure to the hydraulic piston/cylinders; and

fastening said plurality of hydraulic piston/cylinder units to said MODU in a manner permitting engagement of their rack engagement members with the toothed racks,

said selection of the number R of toothed racks, the number N of hydraulic piston/cylinders per rack, and the diameter d of the pistons being defined by

$$\frac{\pi P R d^2 (N-1)}{4} \leq W$$

23. (Canceled.)

24. (Canceled.)

25. (Canceled.)

26. (Canceled.)

27. (Canceled.)

28. (Canceled.)

29. (Canceled.)

30. (Original) In a MODU jacking system comprising a MODU platform, a plurality of MODU supporting legs, and means including a plurality of driving toothed members and a plurality of driven toothed members on the plurality of MODU supporting legs, for providing relative motion between the MODU platform and the plurality of MODU supporting legs, the improvement wherein the plurality of driving toothed members comprise continuous linear motion motors driving pluralities of teeth having planar engagement surfaces, and said plurality of driven toothed members comprise racks with pluralities of teeth having planar engagement surfaces, the planar engagement surfaces of said continuous linear motion motor, and said rack mating so the stresses resulting from the driving force of said plurality of teeth of said continuous liner motion motor are substantially uniformly distributed on the planar engagement surfaces of the engaged teeth.

31. (Original) In a MODU jacking system comprising a MODU platform, a plurality of MODU supporting legs and means for providing relative motion between the MODU platform and the plurality of MODU supporting legs, the improvement wherein each of said plurality of MODU supporting legs includes a plurality of leg chords, each leg chord comprising a tubular column with a toothed rack welded on opposite sides of the tubular column, and wherein the means for providing relative motion between the MODU and the plurality of supporting legs comprises at least one continuous linear motion motor engaged with the toothed racks of each of the leg chords of each of the MODU supporting legs.

32. (Currently Amended) In a MODU jacking system comprising a MODU platform, a MODU supporting leg, and means including at least one driving toothed member and at least one driven toothed member on the MODU supporting leg, for providing relative motion between the MODU platform and the ~~plurality of~~ MODU supporting leg, the improvement wherein the driving toothed member and the driven toothed member comprise teeth having mating planar upper and lower engagement surfaces driven by a continuous linear motion motor.

33. (Original) The improved MODU jacking system of claim 32, wherein the planar upper and lower engagement surfaces are angled.

34. (Original) The improved MODU jacking system of claim 33 wherein the angled upper planar engagement surfaces are angled at an angle α_1 and the angled lower planar engagement surfaces are angled at an angle α_2 , and the angles α_1 and α_2 are equal.

35. (Original) The improved MODU jacking system of claim 33 wherein the angled upper planar engagement surfaces are angled at an angle α_1 and the angled lower planar engagement surfaces are angled at an angle α_2 , and angle α_2 is greater than angle α_1 .

36. (Original) The improved MODU jacking system of claim 32 wherein the driving toothed member comprises a plurality of teeth mating with a plurality of teeth of the driven toothed member.

37. (Original) The improved MODU jacking system of claim 32 wherein the continuous linear motion motor provides a jack-up mode, a jack-down mode, and a MODU locking mode.